



New Insights into the Therapeutic Efficacy of Nanomaterials

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Message from the Guest Editor

Dear Colleagues,

Targeted therapies, based on multifunctional nanoparticles, have generated promising results in terms of optimized efficacy and reduced collateral toxicity. However, engineering nanoparticulate systems continues to encounter technical problems *in vitro*. Furthermore, biological barriers represent important walls interfering with their successful *in vivo* fate. The blood–brain barrier, pleural fluid, and mucins on mucous membranes are among the most relevant barricades limiting the targeted delivery of nanomedicines. Recently, there has been significant progress in the optimization of the therapeutic efficacy of these nanomaterials.

This Special Issue hopes to receive contributions that provide an update on the applications and perspectives associated with the engineering of therapeutically efficient nanomedicines. In addition, this Special Issue will analyze the barriers to drug delivery and provides an overview of the various approaches employed to address related topics.

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Guest Editor





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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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